

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING \***

**1.1. Product identifier**

Product name : AQUAFINESSE FILTER CLEANER  
Product code : SWE-FC

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Application : SU21 Consumer product. PC35 Cleaning agent.

**1.3. Details of the supplier of the safety data sheet**

Supplier : Special Water Europe BV  
Plesmanstraat 50  
3905 KZ VEENENDAAL, The Netherlands  
Telephone : +31 318 525 311  
Fax : +31 318 551 836  
E-mail : msds@aquafinesse.com  
Website : www.aquafinesse.com

**1.4. Emergency telephone number**

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:  
NL - Telephone : +31 318 525 311 (During office hours only)  
EMERGENCY TELEPHONE NUMBER (for DOCTORS only):  
National Poisons Information Service +44-844 892 0111 (24/7)

**SECTION 2 HAZARDS IDENTIFICATION \***

**2.1. Classification of the substance or mixture**

Classification (99/45/EC) : Corrosive. Dangerous for the environment.  
CLP classification (1272/2008/EC) : Corrosive to metals, hazard category 1. Skin corrosive, category 1B. Specific target organ toxicity after single exposure, category 3. Hazardous to the aquatic environment — Chronic category 3.  
Human health hazards : Causes severe skin burns and eye damage. May cause respiratory irritation. Warning! Do not use together with other products. May release dangerous gases (chlorine).  
Physical/chemical hazards : Contact with acids liberates toxic gas. Reacts vigorously in contact with acids. Strong heat development possible. May be corrosive to metals.  
Environmental hazards : Harmful to aquatic life with long lasting effects.  
Other information : Keep locked up and out of the reach of children. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**2.2. Label elements**

Label elements (1272/2008/EC):  
Hazard pictograms :



Signal word : Danger  
H- and P-phrases : H290 May be corrosive to metals.

H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
EUH031	Contact with acids liberates toxic gas.
EUH206	Warning! Do not use together with other products. May release dangerous gases (chlorine).
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P363	Wash contaminated clothing before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P234	Keep only in original container.
P273	Avoid release to the environment.
P390	Absorb spillage to prevent material damage.
P501	Dispose of contents/container to an official chemical waste depot.

Additional labelling (99/45/EC and/or 1272/2008/EC)

- : Contains: Disodium metasilicate ; Sodium hydroxide .
- : Where the mixture is labelled in accordance with Regulation (EC) No 1272/2008 (CLP) the packaging shall (also) carry the text: Contains: Silicic acid, sodium salt ; Pentapotassium bis(peroxymonosulphate) bis(sulphate) .
- : 3 % of the mixture consists of ingredient(s) of unknown toxicity.

Ingredient declaration according to Regulation 648/2004:

Contains:	Concentration (%)
Non-ionic surfactants , Oxygen-based bleaching agents , Chlorine-based bleaching agents	< 5

Other information : According to directive 99/45/EC, the packaging of this product shall carry a tactile warning of danger and a child resistant closure. According to regulation (EC) 1272/2008, Annex II, part 3, the packaging of this product shall carry a tactile warning of danger and a child-resistant fastening.

**2.3. Other hazards**

Other information : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

**3.2. Mixtures**

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC number	Symbols	R-phrases
Citric acid	10 - < 20	77-92-9	201-069-1	Xi	36
Sodium carbonate	10 - < 20	497-19-8	207-838-8	Xi	36
Silicic acid, sodium salt	10 - < 20	1344-09-8	215-687-4	Xi	37/38-41
Disodium metasilicate	5 - < 10	6834-92-0	229-912-9	C	34-37
Aluminium hydroxide	1 - < 5	21645-51-2	244-492-7	-----	-----
Troclosene sodium, dihydrate	1 - < 2,5	51580-86-0	220-767-7	Xn; N	22-31-36/37-50/53

Sodium hydroxide	1 - < 5	1310-73-2	215-185-5	C	35
Alcohols, C12-18, ethoxylated propoxylated	1 - < 5	69227-21-0	-----	Xi; N	38-50
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	1 - < 3	70693-62-8	274-778-7	C	22-34-52

Occupational exposure limit(s), if relevant, are listed in section 8.

Substance name	REACH nr.	Hazard Class	Pictograms	H-phrases
Citric acid		Eye Irrit. 2	GHS07	H319
Sodium carbonate	01-2119485498-19	Eye Irrit. 2	GHS07	H319
Silicic acid, sodium salt		Eye Dam. 1; Skin Irrit. 2; STOT SE 3	GHS05; GHS07	H318; H315; H335
Disodium metasilicate	01-2119449811-37	Met. Corr. 1; Skin Corr. 1B; STOT SE 3	GHS05; GHS07	H290; H314; H335
Aluminium hydroxide	01-2119529246-39	-----	-----	-----
Troclosene sodium, dihydrate		Acute Tox. 4; Eye Irrit. 2; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 1	GHS07; GHS09	H302; H319; H335; H400; H410; EUH031
Sodium hydroxide	01-2119457892-27	Skin Corr. 1A; Met. Corr. 1	GHS05	H314; H290
Alcohols, C12-18, ethoxylated propoxylated		Skin Irrit.2; Aquatic Acute 1	GHS07; GHS09	H315; H400
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	01-2119485567-22	Acute Tox. 4; Skin Corr. 1B; Aquatic Chronic 3	GHS03; GHS05	H302; H314; H412

Reference is made to chapter 16 for full text of each relevant H phrase.

## SECTION 4 FIRST-AID MEASURES \*

### 4.1. Description of first aid measures

#### First aid measures

- Inhalation : Move victim into fresh air. Consult a doctor.
- Skin contact : Immediately wash off skin with plenty of water. Take off contaminated clothing. Consult a doctor in case burns or irritation occur.
- Eye contact : Wash out with (lukewarm) water for at least 15 minutes. Remove contact lenses. Transport to a hospital immediately.
- Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. Give condensed milk or a knob of butter. Never give anything by mouth to an unconscious person. Transport to a hospital immediately.

### 4.2. Most important symptoms and effects, both acute and delayed

#### Effects and symptoms

- Inhalation : Corrosive. May cause sore throat and coughing. May cause shortness of breath or lack of breath.
- Skin contact : Corrosive. May cause redness, pain and severe burns (blisters).
- Eye contact : Corrosive. May cause redness and severe pain. Tears.
- Ingestion : Corrosive. May cause burning pain in throat and mouth. May cause a feeling of sickness, stomachache, vomiting and diarrhoea.

### 4.3. Indication of any immediate medical attention and special treatment needed

- Note to physicians : None known.

## SECTION 5 FIRE-FIGHTING MEASURES \*

**5.1. Extinguishing media**

Extinguishing media  
 Suitable : Water fog.  
 Not suitable : Carbondioxide (CO2). Foam. Dry chemical. Water jet.

**5.2. Special hazards arising from the substance or mixture**

Special exposure hazards : Reacts violently with flammable and reducing agents with risk of explosions. Water may be used to cool containers. Heating causes oxygen release, intensifying the fire.  
 Hazardous thermal decomposition products : Generates toxic (phosgene) and corrosive vapours (hydrochloric acid) in case of combustion. Carbon monoxide may be evolved if incomplete combustion occurs.

**5.3. Advice for firefighters**

Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

**SECTION 6 ACCIDENTAL RELEASE MEASURES \***

**6.1. Personal precautions, protective equipment and emergency procedures**

Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material. Do not breathe dust.

**6.2. Environmental precautions**

Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. Waste product should not be allowed to contaminate soil or water. Large scale discharge causing a very high pH may impair the biological system in sewage plants. Inform the official bodies if necessary.  
 Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up : Collect spilled material in containers. Do not use saw-dust. Dispose at an authorised waste collection point. Wash away remainder with plenty of water.

**6.4. Reference to other sections**

Reference to other sections : See also section 8.

**SECTION 7 HANDLING AND STORAGE \***

**7.1. Precautions for safe handling**

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Avoid contact with skin and eyes. Wear protective clothing.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage : Keep in a cool, dry and well-ventilated place (< 35 °C). Keep away from food, drink and animal feedingstuffs.  
 Recommended packaging : Keep only in the original container.  
 Non recommended packaging : None known.

**7.3. Specific end use(s)**

Use : Use only as directed. Do not mix with other products.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**
**8.1. Control parameters**

Occupational exposure limits : Occupational exposure limits have not been established for this product. Derived no-effect levels (DNEL) have not been established for this product. Predicted no-effect concentrations (PNEC) have not been established for this product.

Workplace exposure limits (mg/m<sup>3</sup>):

Chemical name	Country	TWA 8 hour (mg/m <sup>3</sup> )	STEL 15 min (mg/m <sup>3</sup> )	Comments
Sodium carbonate		1	3	MAC RO
Aluminium hydroxide	GB	2	-	Aluminium salts, soluble
Aluminium hydroxide		1	-	MAC: DA, calculated for Al
Sodium hydroxide	GB	-	2	-
Pentapotassium bis(peroxymonosulphate) bis(sulphate)		6	-	MAC: DE

Derived no-effect level (DNEL) for workers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Sodium carbonate	Inhalation			10 mg/m <sup>3</sup>	
Disodium metasilicate	Dermal				1,49 mg/kg bw/day
	Inhalation				6,22 mg/m <sup>3</sup>
Aluminium hydroxide	Inhalation			10,76 mg/m <sup>3</sup>	
Sodium hydroxide	Inhalation			1 mg/m <sup>3</sup>	
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	Dermal		80 mg/kg bw		20 mg/kg bw/day
	Inhalation	50 mg/m <sup>3</sup>	50 mg/m <sup>3</sup>	0,28 mg/m <sup>3</sup>	0,28 mg/m <sup>3</sup>

Derived no-effect level (DNEL) for consumers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Sodium carbonate	Inhalation	10 mg/m <sup>3</sup>			
Disodium metasilicate	Dermal				0,74 mg/kg bw/day
	Inhalation				1,55 mg/m <sup>3</sup>
	Oral				0,74 mg/kg bw/day
Aluminium hydroxide	Oral				4,74 mg/kg bw/day
Sodium hydroxide	Inhalation			1 mg/m <sup>3</sup>	
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	Dermal	0,22 mg/kg bw	40 mg/kg bw		10 mg/kg bw/day
	Inhalation	25 mg/m <sup>3</sup>	25 mg/m <sup>3</sup>	0,14 mg/m <sup>3</sup>	0,14 mg/m <sup>3</sup>
	Oral		10 mg/kg bw		10 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Citric acid	Water	0,44 mg/l	0,044 mg/l	
	Sediment	34,6 mg/kg	3,46 mg/kg	
	STP			1000 mg/l
	Soil			33,1 mg/kg
Disodium metasilicate	Water	7,5 mg/l	1 mg/l	
	Intermittent water			7,5 mg/l
	STP			1000 mg/l
Aluminium hydroxide	STP			20 mg/l

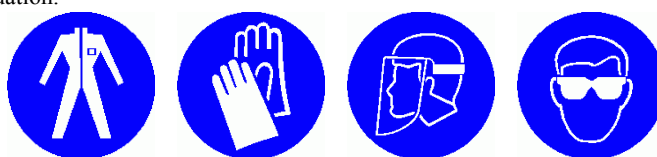
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	Water	0,022 mg/l	0,00222 mg/l	
	Sediment	0,0782 mg/kg	0,00796 mg/kg	
	Intermittent water			0,0109 mg/l
	STP			108 mg/l
	Soil			1 mg/kg
	Oral			44,44 mg/kg food

## 8.2. Exposure controls

- Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals.  
Hygienic measures : When using do not eat, drink or smoke.

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.



- Body protection : Wear appropriate protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345. Suitable material: PVC. Indication of permeation breakthrough time: 6 hours.  
Respiratory protection : Take care of sufficient ventilation.  
Hand protection : Wear appropriate safety gloves in accordance with EN 374. Suitable material: PVC. ± 0,5 mm. Indication of permeation breakthrough time: 6 hours.  
Eye protection : Wear a face shield or appropriate safety glasses with side shields, in accordance with EN 166.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1. Information on basic physical and chemical properties

Appearance	: Solid.	
Colour	: White.	
Odour	: Characteristic.	Chlorine-like.
Odour threshold	: Not known.	
pH	: 8,3	10% solution.
Solubility in water	: Soluble.	
Partition coefficient (n-octanol/water)	: Not applicable.	Contains surfactants. The O/W system emulsifies.
Flash point	: Not applicable.	
Flammability (solid, gas)	: Not flammable.	
Auto ignition temperature	: > 1010 °C	
Boiling point/boiling range	: > 250 °C	
Melting point/melting range	: Not known.	
Explosive properties	: None known.	Does not contain explosives.
Explosion limits (in air)	: Not applicable.	
Oxidising properties	: Slightly oxidizing.	
Decomposition temperature	: Not known.	
Viscosity (20°C)	: Not applicable.	Solid.
Viscosity (40°C)	: Not applicable.	Solid.
Vapour pressure (20°C)	: Very low.	Solid.
Vapour density (20°C)	: Not applicable.	The solvent content of this product is less than 1%.
Relative density (20°C)	: Not known.	
Evaporation rate	: Very low.	Solid.

**SECTION 10 STABILITY AND REACTIVITY** \*

**10.1. Reactivity**

Reactivity : See sub-sections below.

**10.2. Chemical stability**

Stability : Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

Reactivity : No other hazardous reactions known.

**10.4. Conditions to avoid**

Conditions to avoid : See section 7.

**10.5. Incompatible materials**

Materials to avoid : Keep away from acids. Contact with acids liberates toxic gas. Keep away from reducing agents. Keep away from halogenated substances. Keep away from heavy metals.

**10.6. Hazardous decomposition products**

Hazardous decomposition products : Oxygen. HCl-gas and chlorine vapours.

**SECTION 11 TOXICOLOGICAL INFORMATION** \*

**11.1. Information on toxicological effects**

No toxicological research has been carried out on this product.

**Inhalation**

- Acute toxicity : Calculated LC50: > 1,714 mg/l. Ingredients of unknown toxicity: 39 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met. May cause damage to organs. Target organ(s): Respiratory system. Effect(s): May cause irritation to respiratory airways and coughing.
- Corrosion/irritation : Corrosive. May cause sore throat and coughing. May cause pulmonary oedema. Symptoms of pulmonary oedema often manifest after several hours.
- Sensitisation : Not classified - based on available data, the classification criteria are not met.
- Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

**Skin contact**

- Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: 47 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Corrosive. Causes severe burns.
- Sensitisation : Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

**Eye contact**

- Corrosion/irritation : Corrosive. Risk of serious damage to eyes.

**Ingestion**

- Acute toxicity : Calculated LD50: > 3184 mg/kg.bw. Ingredients of unknown toxicity: 3 %. ATE: > 2000 mg/kg.bw. Not classified - based on available data, the classification criteria are not met.

- Corrosion/irritation : Corrosive. May cause burning pain in throat and mouth. May cause a feeling of sickness, stomachache, vomiting and diarrhoea.
- Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

## Toxicological information:

Chemical name	Property		Method	Test animal
Disodium metasilicate	Skin irritation	Corrosive.	OECD 404	Rabbit
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vitro	Not genotoxic	OECD 473	
	Genotoxicity - in vivo	Not genotoxic	OECD 475	Mouse
	Skin sensitisation	Not sensitizing	OECD 429	Mouse
	LD50 (dermal) - estimate	> 5000 mg/kg bw	-----	Rat
	NOAEL (oral)	127 mg/kg bw/d	-----	Rat
	LC50 (inhalation) - estimate	> 5000 mg/m3	-----	-----
	LD50 (oral) - estimate	> 2000 mg/kg bw	-----	-----
	Eye irritation - estimate	Corrosive.		Rabbit
Sodium hydroxide	LD50 (oral)	662 mg/kg bw	-----	Mouse
	Eye irritation	Corrosive.		
	Skin irritation	Corrosive.		
	LD50 (oral) - estimate	> 2000 mg/kg bw		
	Skin sensitisation - estimate	Not sensitizing		
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	LD50 (oral)	1204 mg/kg bw	-----	Rat
	LD50 (dermal)	> 2000 mg/kg bw	-----	Rat
	LC50 (inhalation)	> 5000 mg/m3		Rat
	Skin sensitisation	Not sensitizing		Guinea pig
	Skin irritation	Corrosive.	OECD 404	Rabbit
	Eye irritation	Highly irritant	-----	Rabbit
	NOAEL (inhalation)	1,4 mg/m3		
	Mutagenicity	Negative	OECD 471	Salmonella typhimurium
	Genotoxicity - in vivo	Not genotoxic	OECD 474	Mouse
	NOAEL (development, oral)	Not teratogenic	OECD 414	Rat

**SECTION 12 ECOLOGICAL INFORMATION**

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**12.1. Toxicity**

No ecotoxicological research has been carried out on this product.

Ecotoxicity : Harmful to aquatic life with long lasting effects. Calculated LC50 (fish): 7 mg/l. Calculated EC50 (waterflea): 6 mg/l. Contains < 1 % of components with unknown hazards to the aquatic environment.

**12.2. Persistence and degradability**

Persistence – degradability : May cause long-term adverse effects in the aquatic environment. The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents.

**12.3. Bioaccumulative potential**

Bioaccumulative potential : No specific information known.

**12.4. Mobility in soil**



Mobility : If product enters soil, it will be highly mobile and may contaminate groundwater.

### 12.5. Results of PBT and vPvB ass

PBT/vPvB assessment : Does not contain PBT or vPvB substances in concentrations higher than 0,1%.

### 12.6. Other adverse effects

Other information : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
Troclosene sodium, dihydrate	LC50 (fish)	0,22 mg/l	----	----
	EC50 (waterflea)	0,2 mg/l	----	----
Pentapotassium bis(peroxymonosulphate) bis(sulphate)	EC50 (waterflea)	5,3 mg/l	OECD 202	Daphnia magna
	LC50 (fish)	32 mg/l	OECD 203	Brachydanio rerio
	NOEC (fish)	0,222 mg/l.d		Cyprinodon variegatus
	NOEC (waterflea) - chronic	0,267 mg/l.d		Mysidopsis bahia
	Log P(ow)	-3,9		

## SECTION 13 DISPOSAL CONSIDERATIONS \*

### 13.1. Waste treatment methods

- Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues and non-empty pack as hazardous waste.
- Additional warning : None.
- European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.
- Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

## SECTION 14 TRANSPORT INFORMATION \*

### 14.1. UN number

UN nr. : UN 3262

### 14.2. UN proper shipping name

Transport name : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. ( Disodium metasilicate ; Sodium hydroxide )

Transport name (IMDG, IATA) : CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Disodium metasilicate ; Sodium hydroxide)

### 14.3/14.4/14.5. Transport hazard class(es)/Packing group/Environmental hazards

ADR/RID/ADN (road/railway/inland waterways)

Class : 8

Classification code : C6

Packaging group : II

Danger label : 8



IMDG (sea)

Class : 8  
 Packaging group : II  
 EmS (fire / spill) : F - A / S - B  
 Marine pollutant : No

IATA (air)

Class : 8

**14.6. Special precautions for user**

Other information : Country specific variations may apply. It is possible that a "Limited Quantity" exemption applies to the transport of this product.

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Marpol : Not intended to be carried in bulk according to International Maritime Organisation (IMO) instruments. Packaged liquids are not considered bulk.

**SECTION 15 REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Community regulations : Regulation (EC) No 453/2010 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations.

**15.2. Chemical safety assessment**

Chemical safety assessment : Not applicable.

**SECTION 16 OTHER INFORMATION**

**16.1. Other information**

The information in this safety data sheet is compiled in compliance with Regulation (EC) No 453/2010 dated 20 May 2010 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (\*).

Full text of R-phrases mentioned in section 3:

R22	Harmful if swallowed.
R31	Contact with acids liberates toxic gas.
R34	Causes burns.
R35	Causes severe burns.
R36	Irritating to eyes.
R36/37	Irritating to eyes and respiratory system.
R37	Irritating to respiratory system.
R37/38	Irritating to respiratory system and skin.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.

- R50 Very toxic to aquatic organisms.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52 Harmful to aquatic organisms.

Full text of H-phrases mentioned in section 3:

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.
- EUH031 Contact with acids liberates toxic gas.

Full text of hazard classes mentioned in section 3:

- Acute Tox. 4 : Acute toxicity, category 4.
- Skin Corr. 1A : Skin corrosion, category 1A.
- Skin Corr. 1B : Skin corrosive, category 1B.
- Skin Irrit. 2 : Skin irritation, category 2.
- Eye Dam. 1 : Serious eye damage, category 1.
- Eye Irrit. 2 : Eye irritation, category 2.
- STOT SE 3 : Specific target organ toxicity after single exposure, category 3.
- Aquatic Chronic 1 : Hazardous to the aquatic environment — Chronic category 1.
- Aquatic Chronic 3 : Hazardous to the aquatic environment — Chronic category 3.
- Aquatic Acute 1 : Hazardous to the aquatic environment — Acute category 1.
- Met. Corr. 1 : Corrosive to metals, hazard category 1.

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

- ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE : Acute Toxicity Estimate
- CLP : Classification, Labeling & Packaging
- CMR : Carcinogenic, Mutagenic or toxic for Reproduction
- EEC : European Economic Community
- IATA : International Air Transport Association
- IBC code : International Bulk Chemical Code
- IMDG : International Maritime Dangerous Goods Code
- LD50/LC50 : Lethal Dose/Concentration for 50% of a population
- MAC : Maximum Allowable Concentration
- MARPOL : International Convention for the Prevention of Pollution From Ships
- NO(A)EL : No Observed (Adverse) Effect Level
- OECD : Organisation for Economic Co-operation and Development
- PBT : Persistent, Bioaccumulative and Toxic
- PC : Chemical product category
- PT : Product type
- REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
- RID : Regulations concerning the International Carriage of Dangerous Goods by Rail
- STP : Sewage Treatment Plant
- SU : Sector of Use
- TWA/STEL : Time-Weighted Average/Short Term Exposure Limit
- UN : United Nations
- VOC : Volatile Organic Compounds
- vPvB : Very Persistent and Very Bioaccumulative

Number format : "," used as decimal separator.

History

Date of first issue : 01-03-2011

Date of second issue : 07-11-2012

Date of third issue : 01-06-2015

Herewith all previous issues are expired.